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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,804	04/15/2004	Gregory Ralph Harrod	20714-0033	6656
26587	7590	01/19/2005	EXAMINER	
MCNEES, WALLACE & NURICK LLC 100 PINE STREET P.O. BOX 1166 HARRISBURG, PA 17108-1166			JARRETT, RYAN A	
			ART UNIT	PAPER NUMBER
			2125	

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/824,804	Applicant(s) HARROD ET AL.	
	Examiner Ryan A. Jarrett	Art Unit 2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/15/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 9, 10, 22, 23, 33, and 34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

It is unclear where support for these claimed limitations are found in the specification. This is perhaps due to the 112 2nd problems noted below.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4, 5, 8-10, 14, 15, 20-23, 27, 28, and 31-34 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "the predetermined time" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the predetermined time" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the predetermined time" in line 4 and "the predetermined indoor temperature" in line 5. There is insufficient antecedent basis for these limitations in the claim.

Claim 9 recites the limitation "the predetermined time" in line 5 and "the predetermined indoor temperature" in line 6. There is insufficient antecedent basis for these limitations in the claim.

Claim 10 depends from claim 9 and incorporates the same deficiency.

Claim 14 recites the limitation "the predetermined time" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "the predetermined time" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 20 recites the limitation "the predetermined time" in line 4 and "the second predetermined temperature" in line 5. There is insufficient antecedent basis for these limitations in the claim.

Claim 21 depends from claim 20 and incorporates the same deficiency.

Claim 22 recites the limitation "the predetermined time" in line 4 and "the second predetermined temperature" in line 5. There is insufficient antecedent basis for these limitations in the claim.

Claim 23 depends from claim 22 and incorporates the same deficiency.

Furthermore, it is unclear what is actually being claimed in claims 22 and 23. It is unclear what steps take place "unless the ambient outside temperature is greater

than a third predetermined temperature”, which is “greater than a value that can damage the interior space”.

Claim 27 recites the limitation “the predetermined time” in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 28 recites the limitation “the predetermined time” in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 31 recites the limitation “the predetermined time” in line 4 and “the second predetermined temperature” in line 5. There is insufficient antecedent basis for these limitations in the claim.

Claim 32 depends from claim 31 and incorporates the same deficiency.

Claim 33 recites the limitation “the predetermined time” in line 4 and “the second predetermined temperature” in line 5. There is insufficient antecedent basis for these limitations in the claim.

Claim 34 depends from claim 33 and incorporates the same deficiency.

Furthermore, it is unclear what is actually being claimed in claims 33 and 34. It is unclear what steps take place “unless the ambient outside temperature is greater than a third predetermined temperature”, which is “greater than a value that can damage the interior space”.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3, 6-11, 13, 16-21, 24, 26, and 29-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Gilkeson et al. U.S. Patent No. 4,262,736. For example, Gilkeson et al. discloses:

1. A method of providing heat for an interior space, the method comprising the steps of: providing a HVAC system having a compressor, a condenser and an evaporator connected in a closed refrigerant loop (e.g., col. 3 lines 31-35); providing an auxiliary heater controllable independently of the HVAC system (e.g., col. 3 lines 49-56); operating the HVAC system to provide heat in response to a demand for heating in the interior space (e.g., col. 3 lines 49-56); comparing an ambient outside temperature with a predetermined balance point temperature associated with the HVAC system (col. 3 line 64 – col. 4 line 4); and enabling the auxiliary heater in response to the ambient outside temperature being greater than the predetermined balance temperature (e.g., col. 2 lines 63-68, col. 4 lines 25-44) and the satisfaction of at least one predetermined criteria related to the HVAC system (e.g., col. 1 lines 44-55).

3. The method of claim 1 wherein the at least one predetermined criteria includes an indoor temperature of the interior space being less than a predetermined indoor temperature (e.g., col. 1 lines 44-55).

6. The method of claim 1 wherein the ambient outside temperature is less than a value that can damage the interior space (e.g., col. 3 line 64 – col. 4 line 4).

7. The method of claim 6 wherein the ambient outside temperature is less than about 32°F (e.g., col. 3 line 64 – col. 4 line 4).

8. The method of claim 1 further including an additional step, of sensing the operational status of the HVAC system, wherein upon sensing the operational status of the HVAC system functioning improperly, the auxiliary heater is enabled without regard to the HVAC system being enabled for the predetermined

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time or the interior space being less than the predetermined indoor temperature (e.g., col. 1 lines 56 – 68, col. 4 line 57 – col. 5 line 3).

9. The method of claim 1 wherein the step of enabling the auxiliary heater includes the step of enabling the auxiliary heater in response to the ambient outside temperature being greater than the predetermined balance point temperature and less than a second predetermined temperature, and at least one of the HVAC system being operated for the predetermined time and the indoor temperature of the interior space being less than the predetermined indoor temperature (e.g., col. 2 lines 63-68, col. 4 lines 25-44).

10. The method of claim 9 wherein the second predetermined temperature is greater than a value that can damage the interior space (it is inherent that the ambient outside temperature is less than “some” temperature value that won’t cause damage to the interior space; in fact, it is less than infinitely many of these theoretical values).

32. The HVAC system of claim 31 wherein the control panel includes a diagnostic module to determine if the HVAC system is functioning improperly (e.g., col. 2 lines 21-31).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 4, 5, 12, 14, 15, 25, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilkeson et al. as applied to claims 1, 11, and 24 above, and further in view of Toth et al. U.S. Patent No. 6,729,390. Gilkeson et al. does not disclose that the auxiliary heater is additionally enabled in response to the HVAC

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system (compressor) being operated for a predetermined time. However, Toth et al. discloses a control system for a heat pump with an auxiliary heat source in which the auxiliary heater is enabled in response to the HVAC heat pump (compressor) being operated for a predetermined time (e.g., col. 2 line 62 – col. 3 line 10). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gilkeson et al. with Toth et al. since Toth et al. teaches that such a methodology results in operation that is generally more comfortable and efficient, automatically adapting to changing outside weather conditions and inside set points, which systems relying solely on sensing outside temperature cannot do (col. 2 lines 30-35).

Conclusion

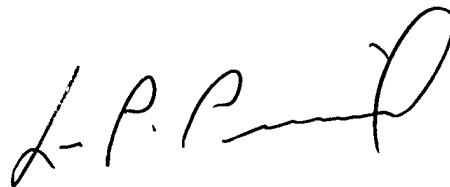
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan A. Jarrett whose telephone number is (571) 272-3742. The examiner can normally be reached on 10:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan A. Jarrett
Examiner
Art Unit 2125

1/17/05

A handwritten signature in black ink, appearing to read "L. P. Picard". The signature is fluid and cursive, with a large loop at the end.

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100